

Applicant: William S. Gatley

Serial No. 09/597,448

On page 8, lines 1-13, please amend the paragraph as follows:

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It is further possible to eliminate much of the heat that is generated in the vestibule of a furnace. Temperatures which typically reach 150°F can be reduced to 90°F by using the novel venting method. The blower can be sealed off to the furnace for fresh air intake. Optionally, the blower can be sealed off to the furnace door to allow for the total sealing of the inducer compartment to maximize blower efficiency. Such a configuration maximizes the drawing of motor heat into the impeller chamber and out the outlet pipe 40 which is in fluid communication with the impeller housing 28. Also maximized is the elimination of the heat source near the furnace electronics which are at least partially contained in the furnace vestibule.

IN THE CLAIMS:

Please cancel claims 4 and 9.

Please amend the claims as follows:

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3. (Amended) A method of cooling a motor of a blower assembly used to expel exhaust gases from a furnace, the blower assembly having a motor housing for enclosing the motor and an impeller housing fixed to the motor housing that receives an impeller mounted to a motor shaft of the motor, the method comprising the steps of:
forming at least one vent aperture in the motor housing such that cooling air can enter the motor housing through the vent aperture;
forming an inlet port between the motor housing and the impeller housing such that cooling air can enter the impeller housing from the motor housing through the inlet port;
forming at least one aperture in a back plate of the impeller such that cooling air can pass through the back plate of the impeller; and
rotating the impeller to both draw cooling air into the impeller housing through the vent aperture in the motor housing to cool the motor and to draw exhaust gases into the impeller housing from the furnace, wherein the rotating impeller expels the cooling air and the exhaust gas from the impeller housing.

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5. (Amended) The method of claim 3 wherein the motor housing is secured to the impeller housing.

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6. (Amended) The method of claim 3 wherein the motor shaft passes through the inlet opening between the motor chamber and the impeller chamber.

7. (Amended) A furnace blower assembly for expelling exhaust gases from a furnace, the blower assembly comprising:

a motor having a motor shaft;

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a motor housing configured to receive and enclose the motor, the motor housing including at least one vent aperture for allowing external cooling air to enter the motor housing;

an impeller housing mounted to the motor housing, the impeller housing including an inlet port for providing fluid communication between the impeller housing and the motor housing; and

an impeller enclosed within the impeller housing and mounted to the motor shaft for rotation with the motor shaft, the impeller having a back plate and a plurality of fins, wherein the back plate includes a plurality of apertures, wherein rotation of the impeller draws cooling air into the impeller housing from the motor housing for cooling the motor and draws the exhaust gases from the furnace into the impeller chamber.

8. (Amended) The furnace blower assembly of claim 7 wherein the motor housing is connected to the impeller housing such that cooling air can enter the motor housing through only the vent aperture formed in the motor housing.

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10. (Amended) The furnace blower assembly of claim 7 wherein the motor shaft extends through the inlet port.